

#### ABSTRACT OF THE DISCLOSURE

A method of, and means for accomplishing the method, optimizing system resources in a network (102) using packetized voice telephony consists of the following steps: determining (302) that a packetized voice call from an originating gateway (104) terminates at a non-human voice interface system (108), wherein the packetized voice call is assigned a specified high priority level; and transmitting (304) signaling to cause the originating gateway (104) to transmit the packetized voice call to the non-human voice interface system (108) at a lower priority than the specified high priority level.